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# PATENT ABSTRACTS OF JAPAN

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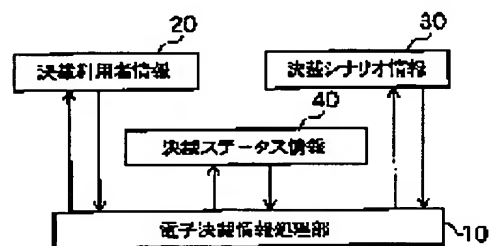
(72)Inventor : ATO HIROKAZU

## (54) ELECTRONIC APPROVING PROCESSOR AND MEDIUM FOR RECORDING ELECTRONIC APPROVING PROCESSING PROGRAM

(57)Abstract:

PROBLEM TO BE SOLVED: To mechanically manage various approving processings different for respective slips without manual intervention and to instantaneously confirm the conditions of the approving processing by obtaining an approval from an approving person corresponding to the approval order of approval stipulation information to an issued slip and managing the information of the approving person who gives the approval and its contents.

SOLUTION: An approval user information management part 20 manages a requesting person and an approving person as approval user information by post information. An approval scenario information management part 30 manages approval scenario information for stipulating the requesting person, the respective approving persons and the approval order for the respective forms of the respective slips. An approval status information management part 40 manages the approval processing conditions of an approval slip as approval status information. An electronic approval processing management part 10 obtains the approval from the respective approving persons corresponding to the approval order managed in the approval status information, enters and updates the information of the approving person who gives the approval and the approval contents in the approval status information and manages them.



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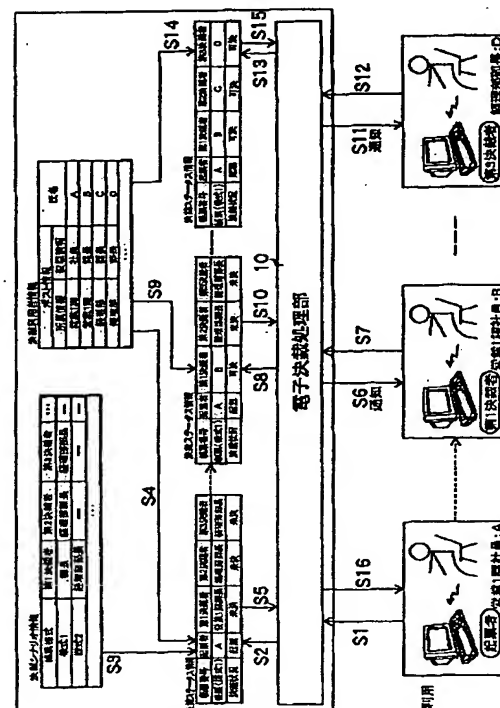
(74) 代理人 弁理士 三好 秀和 (外1名)

(54) 【発明の名称】 電子決裁処理装置および電子決裁処理プログラムを記録した記録媒体

(57) 【要約】

【課題】 各帳票によって異なる種々の決裁処理を人手によらず機械的に管理し、決裁処理の状況を即時に確認し得る電子決裁処理装置および電子決裁処理プログラムを記録した記録媒体を提供する。

【解決手段】 起票者、各決裁者および決裁順序を規定する決裁シナリオ情報を各帳票毎に管理するとともに、起票者からの帳票を受け取ると、この帳票に対する決裁シナリオ情報を受け取り、この決裁シナリオ情報に基づいて帳票の起票者、各決裁者、決裁順序および決裁内容を決裁ステータス情報として管理しながら、この決裁ステータス情報で管理される決裁順序に従って各決裁者から決裁を求め、この決裁を行った決裁者の情報および決裁内容を決裁ステータス情報に記載更新して管理する。



## 【特許請求の範囲】

【請求項 1】 決裁すべき業務についてその起票から各決裁を順次管理する電子決裁処理装置であって、決裁すべき業務を提案して決裁を求める帳票を作成して発行する起票者、この帳票を決裁する一人乃至複数の決裁者および該決裁者に決裁を求める決裁順序を規定する決裁規定情報を各帳票毎に管理する決裁規定情報管理手段と、

起票者によって発行された帳票を該起票者の情報とともに受け取り、この受け取った帳票に対する決裁者および該決裁者に決裁を求める決裁順序に関する決裁規定情報を前記決裁規定情報管理手段から入手し、この決裁規定情報の決裁順序に従って決裁者から決裁を求めるとともに、この決裁を行った決裁者の情報および決裁内容を管理する決裁管理手段とを有することを特徴とする電子決裁処理装置。

【請求項 2】 決裁すべき業務についてその起票から各決裁を順次管理する電子決裁処理装置であって、起票および決裁に関わる決裁利用者の情報を管理する決裁利用者情報管理手段と、

決裁すべき業務を提案して決裁を求める帳票を作成して発行する起票者、この帳票を決裁する各決裁者および該決裁者に決裁を求める決裁順序を規定する決裁シナリオ情報を各帳票毎に管理する決裁シナリオ情報管理手段と、

起票者によって発行された帳票を該起票者の情報とともに受け取った場合、この受け取った帳票に対する決裁シナリオ情報を前記決裁シナリオ情報管理手段から受け取り、この受け取った決裁シナリオ情報に基づいて該帳票の起票者、各決裁者、各決裁者による決裁順序、および各決裁者による決裁内容に関する情報を決裁ステータス情報として管理しながら、この決裁ステータス情報で管理される決裁順序に従って各決裁者から決裁を求め、この決裁を行った決裁者の情報および決裁内容を前記決裁ステータス情報に記載更新して管理する決裁管理手段とを有することを特徴とする電子決裁処理装置。

【請求項 3】 決裁すべき業務についてその起票から各決裁を順次管理する電子決裁処理プログラムを記録した記録媒体であって、

決裁すべき業務を提案して決裁を求める帳票を作成して発行する起票者、この帳票を決裁する一人乃至複数の決裁者および該決裁者に決裁を求める決裁順序を規定する決裁規定情報を各帳票毎に管理し、

起票者によって発行された帳票を該起票者の情報とともに受け取り、この受け取った帳票に対する決裁者および該決裁者に決裁を求める決裁順序に関する決裁規定情報を前記決裁規定情報管理手段から入手し、この決裁規定情報の決裁順序に従って決裁者から決裁を求めるとともに、この決裁を行った決裁者の情報および決裁内容を管理することを特徴とする電子決裁処理プログラムを記録

した記録媒体。

【請求項 4】 決裁すべき業務についてその起票から各決裁を順次管理する電子決裁処理プログラムを記録した記録媒体であって、

起票および決裁に関わる決裁利用者の情報を管理し、決裁すべき業務を提案して決裁を求める帳票を作成して発行する起票者、この帳票を決裁する各決裁者および該決裁者に決裁を求める決裁順序を規定する決裁シナリオ情報を各帳票毎に管理し、

起票者によって発行された帳票を該起票者の情報とともに受け取った場合、この受け取った帳票に対する決裁シナリオ情報を前記決裁シナリオ情報管理手段から受け取り、この受け取った決裁シナリオ情報に基づいて該帳票の起票者、各決裁者、各決裁者による決裁順序、および各決裁者による決裁内容に関する情報を決裁ステータス情報として管理しながら、この決裁ステータス情報で管理される決裁順序に従って各決裁者から決裁を求め、この決裁を行った決裁者の情報および決裁内容を前記決裁ステータス情報に記載更新して管理することを特徴とする電子決裁処理プログラムを記録した記録媒体。

## 【発明の詳細な説明】

## 【0001】

【発明の属する技術分野】 本発明は、決裁すべき業務についてその起票から各決裁を順次管理する電子決裁処理装置および電子決裁処理プログラムを記録した記録媒体に関する。

## 【0002】

【従来の技術】 決裁業務では、該業務を提案して決裁を求める帳票を作成して発行する起票者および該業務の内容を判断して決裁を行う決裁者は、従来、決裁帳票の様式や組織構成等から次の決裁者を判断し、人手により帳票を手渡ししている。

## 【0003】

【発明が解決しようとする課題】 従って、決裁業務の遅延が発生したり、決裁状況の確認に時間がかかるという問題がある。

【0004】 また、人事異動等により決裁者が替わった場合、誤って前の決裁者に決裁帳票が渡ってしまい、機密上の問題が生じるということもある。

【0005】 本発明は、上記に鑑みてなされたもので、その目的とするところは、各帳票によって異なる種々の決裁処理を人手によらず機械的に管理し、決裁処理の状況を即時に確認し得る電子決裁処理装置および電子決裁処理プログラムを記録した記録媒体を提供することにある。

## 【0006】

【課題を解決するための手段】 上記目的を達成するため、請求項 1 記載の本発明は、決裁すべき業務についてその起票から各決裁を順次管理する電子決裁処理装置であって、決裁すべき業務を提案して決裁を求める帳票を

作成して発行する起票者、この帳票を決裁する一人乃至複数の決裁者および該決裁者に決裁を求める決裁順序を規定する決裁規定情報を各帳票毎に管理する決裁規定情報管理手段と、起票者によって発行された帳票を該起票者の情報とともに受け取り、この受け取った帳票に対する決裁者および該決裁者に決裁を求める決裁順序に関する決裁規定情報を前記決裁規定情報管理手段から入手し、この決裁規定情報の決裁順序に従って決裁者から決裁を求めるとともに、この決裁を行った決裁者の情報および決裁内容を管理する決裁管理手段とを有することを要旨とする。

【0007】請求項1記載の本発明にあつては、起票者、決裁者および決裁順序を規定する決裁規定情報を各帳票毎に管理し、発行された帳票を受け取ると、この帳票に対する決裁者および決裁順序に関する決裁規定情報を入手し、この決裁順序に従って決裁者から決裁を求めるとともに、決裁者の情報および決裁内容を管理するため、帳票毎に管理された決裁者および決裁順序に従って適確に決裁が行われるとともに、決裁の処理状況も迅速に確認することができる。

【0008】また、請求項2記載の本発明は、決裁すべき業務についてその起票から各決裁を順次管理する電子決裁処理装置であつて、起票および決裁に関わる決裁利用者の情報を管理する決裁利用者情報管理手段と、決裁すべき業務を提案して決裁を求める帳票を作成して発行する起票者、この帳票を決裁する各決裁者および該決裁者に決裁を求める決裁順序を規定する決裁シナリオ情報を各帳票毎に管理する決裁シナリオ情報管理手段と、起票者によって発行された帳票を該起票者の情報とともに受け取った場合、この受け取った帳票に対する決裁シナリオ情報を前記決裁シナリオ情報管理手段から受け取り、この受け取った決裁シナリオ情報に基づいて該帳票の起票者、各決裁者、各決裁者による決裁順序、および各決裁者による決裁内容に関する情報を決裁ステータス情報として管理しながら、この決裁ステータス情報で管理される決裁順序に従って各決裁者から決裁を求め、この決裁を行った決裁者の情報および決裁内容を前記決裁ステータス情報に記載更新して管理する決裁管理手段とを有することを要旨とする。

【0009】請求項2記載の本発明にあつては、起票者、各決裁者および決裁順序を規定する決裁シナリオ情報を各帳票毎に管理するとともに、発行された帳票を受け取ると、この帳票に対する決裁シナリオ情報を受け取り、この決裁シナリオ情報に基づいて帳票の起票者、各決裁者、決裁順序および決裁内容を決裁ステータス情報として管理しながら、この決裁ステータス情報で管理される決裁順序に従って各決裁者から決裁を求め、この決裁を行った決裁者の情報および決裁内容を決裁ステータス情報に記載更新して管理するため、帳票毎に規定された決裁者および決裁順序に従って適確に決裁が行われる

とともに、決裁の処理状況も決裁ステータス情報から迅速に確認することができる。

【0010】更に、請求項3記載の本発明は、決裁すべき業務についてその起票から各決裁を順次管理する電子決裁処理プログラムを記録した記録媒体であつて、決裁すべき業務を提案して決裁を求める帳票を作成して発行する起票者、この帳票を決裁する一人乃至複数の決裁者および該決裁者に決裁を求める決裁順序を規定する決裁規定情報を各帳票毎に管理し、起票者によって発行された帳票を該起票者の情報とともに受け取り、この受け取った帳票に対する決裁者および該決裁者に決裁を求める決裁順序に関する決裁規定情報を前記決裁規定情報管理手段から入手し、この決裁規定情報の決裁順序に従って決裁者から決裁を求めるとともに、この決裁を行った決裁者の情報および決裁内容を管理することを要旨とする。

【0011】請求項3記載の本発明にあつては、起票者、決裁者および決裁順序を規定する決裁規定情報を各帳票毎に管理し、発行された帳票を受け取ると、この帳票に対する決裁者および決裁順序に関する決裁規定情報を入手し、この決裁順序に従って決裁者から決裁を求めるとともに、決裁者の情報および決裁内容を管理する電子決裁処理プログラムを記録媒体に記録しているため、該記録媒体を用いて、その流通性を高めることができる。

【0012】請求項4記載の本発明は、決裁すべき業務についてその起票から各決裁を順次管理する電子決裁処理プログラムを記録した記録媒体であつて、起票および決裁に関わる決裁利用者の情報を管理し、決裁すべき業務を提案して決裁を求める帳票を作成して発行する起票者、この帳票を決裁する各決裁者および該決裁者に決裁を求める決裁順序を規定する決裁シナリオ情報を各帳票毎に管理し、起票者によって発行された帳票を該起票者の情報とともに受け取った場合、この受け取った帳票に対する決裁シナリオ情報を前記決裁シナリオ情報管理手段から受け取り、この受け取った決裁シナリオ情報に基づいて該帳票の起票者、各決裁者、各決裁者による決裁順序、および各決裁者による決裁内容に関する情報を決裁ステータス情報として管理しながら、この決裁ステータス情報で管理される決裁順序に従って各決裁者から決裁を求め、この決裁を行った決裁者の情報および決裁内容を前記決裁ステータス情報に記載更新して管理することを要旨とする。

【0013】請求項4記載の本発明にあつては、起票者、各決裁者および決裁順序を規定する決裁シナリオ情報を各帳票毎に管理するとともに、発行された帳票を受け取ると、この帳票に対する決裁シナリオ情報を受け取り、この決裁シナリオ情報に基づいて帳票の起票者、各決裁者、決裁順序および決裁内容を決裁ステータス情報として管理しながら、この決裁ステータス情報で管理さ

れる決裁順序に従って各決裁者から決裁を求め、この決裁を行った決裁者の情報および決裁内容を決裁ステータス情報に記載更新して管理する電子決裁処理プログラムを記録媒体に記録しているため、該記録媒体を用いて、その流通性を高めることができる。

#### 【0014】

【発明の実施の形態】以下、図面を用いて本発明の実施の形態について説明する。図1は、本発明の一実施形態に係る電子決裁処理装置の構成を示すブロック図である。

同図に示す電子決裁処理装置は、決裁帳票の起票者およびその決裁者を所属情報と役職情報からなるポスト情報により決裁利用者情報として管理する決裁利用者情報管理部20、決裁帳票の起票者、その各決裁者および決裁順序を規定する決裁シナリオ情報を各帳票の様式毎に管理する決裁シナリオ情報管理部30、決裁帳票の決裁処理状況を決裁ステータス情報として管理する決裁ステータス情報管理部40、および起票者によって発行された帳票を受け取った場合、この帳票に対する決裁シナリオ情報を決裁シナリオ情報管理部30から受け取り、この受け取った決裁シナリオ情報に基づいて帳票の起票者、各決裁者、各決裁者による決裁順序および決裁内容に関する情報を決裁ステータス情報として前記決裁ステータス情報管理部40に記憶管理しながら、この決裁ステータス情報で管理される決裁順序に従って各決裁者から決裁を求め、この決裁を行った決裁者の情報および決裁内容を決裁ステータス情報に記載更新して管理する電子決裁処理部10から構成されている。

【0015】決裁利用者情報管理部20で管理される決裁利用者情報は、図2に示すように、決裁利用者の各氏名に対応して、所属情報および役職情報からなるポスト情報が管理されている。なお、図2では、営業1課、営業2課、および経理部からなる組織の例が示されている。

【0016】また、決裁シナリオ情報管理部30で管理される決裁シナリオ情報は、図3に示すように、決裁処理対象の各帳票の様式番号に対応して、各帳票の起票者および各決裁者の役職情報またはポスト情報が決裁順に決裁情報として並べられている。なお、図3において、様式1の帳票に対しては、社員が起票者として記載され、それから第1決裁者が課長、第2決裁者が経理部課長、第3決裁者が経理部部長としてその決裁順に並べられている。また、様式2の帳票に対しては、課長が起票者として記載され、第1決裁者が経理部部長として記載されている。

【0017】更に、決裁ステータス情報管理部40で管理される決裁ステータス情報は、図4に示すように、電子決裁処理部10で帳票番号を付与された各帳票に対して起票者および各決裁者の氏名またはポスト情報を順に並べた決裁情報および決裁状況からなる。

【0018】図4では、営業1課の社員のAが様式1の

帳票1を起票し、第1決裁者である営業1課課長に決裁依頼し、まだ未決状態にあることが示されている。また、営業2課の社員のEが様式1の帳票2を起票し、第1決裁者である営業2課課長に決裁依頼し、可決されたが、第2決裁者である経理部部長が否決したことを示している。更に、営業1課の課長のBが様式2の帳票3を起票し、第1決裁者である経理部部長に決裁依頼し、未決状態にあることが示されている。営業2課の課長のFが様式2の帳票4を起票し、第1決裁者である経理部部長に決裁依頼し、可決されて決裁が完了したことを示している。

【0019】次に、以上のように構成される電子決裁処理装置の作用について図5に示す決裁処理例を参照して説明する。図5において、営業1課の社員のAである起票者が起票すると、決裁依頼する帳票と起票者の氏名を電子決裁処理部10に送信する(図5のS1)。電子決裁処理部10では、まず、送信された決裁帳票に一意の帳票番号を付け、決裁ステータス情報の帳票番号に設定するとともに、決裁者情報の起票者に起票者の氏名を設定し、また起票者の決裁状況に「起票」を設定する(図5のS2)。

【0020】次に、決裁シナリオ情報から決裁帳票の様式番号に対する第1決裁者の決裁情報を取得する。決裁情報が役職情報の場合、起票者の所属情報と同じ所属情報に属してこの役職情報を持つポスト情報を決裁利用者情報から検索し、決裁ステータス情報の決裁者情報の第1決裁者に設定する。また、決裁情報がポスト情報の場合は、そのポスト情報を決裁者情報の第1決裁者に設定する。決裁者情報の第1決裁者の決裁状況には「未決」を設定する。

【0021】この処理を第2決裁者、第3決裁者と順に、決裁シナリオ情報の決裁情報に登録されたすべての決裁者について行い、決裁ステータス情報を作成する(図5のS3、S4)。決裁ステータス情報を作成すると、電子決裁処理部10は第1決裁者に設定されたポスト情報を持つ決裁利用者にこの決裁帳票の決裁依頼を自動で通知する(図5のS5、S6)。

【0022】決裁依頼が通知されると、決裁利用者は決裁帳票を確認し、決裁処理の結果として「可決」または「否決」を電子決裁処理部10に送信する(図5のS7)。決裁処理結果が「可決」の場合、電子決裁処理部10は決裁ステータス情報の該当する帳票番号の第1決裁者に決裁利用者情報から取得した決裁利用者の氏名を、また決裁状況に「可決」を設定し(図5のS8、S9)、第2決裁者に設定されたポスト情報を持つ決裁利用者にこの決裁帳票の決裁依頼を自動で通知する(図5のS10、S11)。この処理を決裁ステータス情報の決裁者情報に設定された最後の第3決裁者まで繰り返す(図5のS11)。

【0023】最後の第3決裁者が決裁処理結果として

‘可決’を電子決裁処理部 1 0 に送信した場合（図 5 の S 1 2）、電子決裁処理部 1 0 では、決裁ステータス情報の該当する帳票番号の第 3 決裁者に決裁利用者情報から取得した決裁利用者の氏名を、また決裁状況に ‘可決’を設定し（図 5 の S 1 3、S 1 4）、起票者のポスト情報を持つ決裁利用者に決裁者の決裁状況すべてを自動で通知する（図 5 の S 1 5、S 1 6）。

【0 0 2 4】一方、決裁処理を依頼された決裁利用者が ‘否決’した場合、電子決裁処理部 1 0 は決裁ステータス情報の該当する帳票番号の決裁者に決裁利用者情報から取得した決裁利用者の氏名を、決裁状況に ‘否決’を設定し、起票者に設定されたポスト情報を持つ決裁利用者に今まで決裁された決裁状況を自動で通知する（図 5 の S 1 6）。

【0 0 2 5】決裁帳票の処理状況を知りたい場合は、電子決裁処理部 1 0 に帳票番号を送信すると、電子決裁処理部 1 0 が決裁ステータス情報を検索し、その帳票番号に対するすべての決裁者情報と決裁状況を取得し、依頼者に即時に返却する。

【0 0 2 6】

【発明の効果】以上説明したように、本発明によれば、起票者、決裁者および決裁順序を規定する決裁規定情報を各帳票毎に管理し、発行された帳票を受け取ると、この帳票に対する決裁者および決裁順序に関する決裁規定

情報を入手し、この決裁順序に従って決裁者から決裁を求めるとともに、決裁者の情報および決裁内容を管理するので、帳票毎に管理された決裁者および決裁順序に従って適確かつ迅速に決裁が行われるとともに、決裁の処理状況も迅速に確認することができる。更に、人事異動等により決裁者が変更しても誤りなく決裁処理を行うことができる。

【図面の簡単な説明】

【図 1】本発明の一実施形態に係る電子決裁処理装置の構成を示すブロック図である。

【図 2】図 1 の電子決裁処理装置に使用される決裁利用者情報を示す図である。

【図 3】図 1 の電子決裁処理装置に使用される決裁シナリオ情報を示す図である。

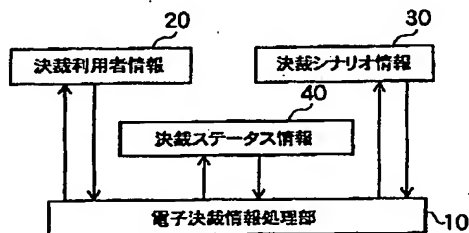
【図 4】図 1 の電子決裁処理装置に使用される決裁ステータス情報を示す図である。

【図 5】図 1 の電子決裁処理装置の決裁処理を示すための説明図である。

【符号の説明】

- 1 0 電子決裁処理部
- 2 0 決裁利用者情報管理部
- 3 0 決裁シナリオ情報管理部
- 4 0 決裁ステータス情報管理部

【図 1】



【図 2】

決裁利用者情報		
ポスト情報		氏名
所属情報	役職情報	
営業1課	社員	A
営業1課	課長	B
経理部	課長	C
経理部	部長	D
営業2課	社員	E
営業2課	課長	F
...		

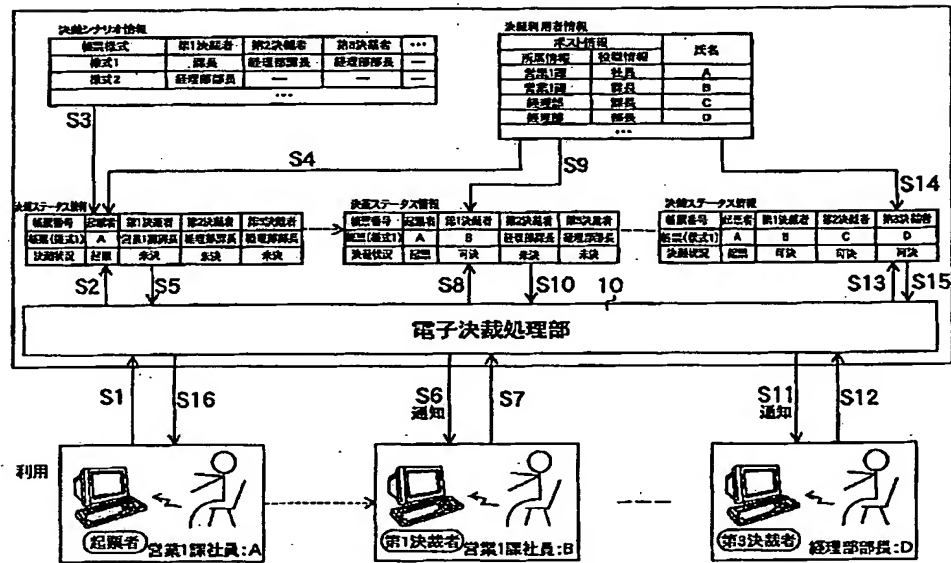
【図 3】

決裁シナリオ情報					
様式番号	決裁情報				
	起票者	第1決裁者	第2決裁者	第3決裁者	...
様式1	社員	課長	経理部課長	経理部部長	—
様式2	課長	経理部部長	—	—	—
...					

【図 4】

決裁ステータス情報					
帳票番号	決裁状況	起票者	第1決裁者	第2決裁者	第3決裁者
帳票1(様式1)	起票	A	営業第1課課長	経理部課長	経理部部長
決裁状況	起票	未決	未決	未決	...
帳票2(様式1)	起票	E	営業2課課長	経理部課長	経理部部長
決裁状況	起票	可決	否決	—	...
帳票3(様式2)	起票	B	経理部部長	—	—
決裁状況	起票	未決	—	—	...
帳票4(様式2)	起票	F	経理部部長	—	—
決裁状況	起票	可決	—	—	...
...					

【図 5】





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(54) Title of Invention

Electronic Approval Processing Apparatus and  
Recording Medium Whereon Electronic Approval Processing  
Program is Recorded

(57) Abstract

[Problem] To provide an electronic approval processing apparatus and a recording medium on which an electronic approval processing program is recorded, which are capable of managing various approval processes that differ according to different documents mechanically instead of manually, and of enabling the status of approval processing to be verified instantly.

[Means to Solve the Problem] Management is conducted in the following manner. Approval scenario information defining an issuer, approvers, and approval order is managed for each document, and, when a document is received from an issuer, approval scenario information for that document is received, and the issuer, approvers, approval order, and approval particulars for the document are managed as approval status information, based on that approval scenario information, and, while that is being done, approvals are requested from the respective approvers according to the approval order managed with that approval status information, and the information and approval particulars of the approvers making that

approval are entered and updated in the approval status information.

[Claims]

[Claim 1] An electronic approval processing apparatus for managing approvals for a business operation to be approved, sequentially from document preparation to approvals therefor, characterized by having:

approval stipulation information management means for managing approval stipulation information that stipulates an issuer who proposes a business operation to be approved and prepares and issues a document seeking approval thereof, one or a plurality of approvers to approve that document, and an approval order for seeking approval from such approvers, for each document; and

approval management means for receiving the document issued by the issuer together with information on that issuer, obtaining approval stipulation information relating to approvers for that received document and an approval order for seeking approvals of those approvers, from the approval stipulation information management means, seeking approvals from the approvers according to the approval order in that approval stipulation information, and managing information on the approvers making those approvals, and the approval particulars thereof.

[Claim 2]        An electronic approval processing apparatus for managing approvals for a business operation to be approved, sequentially from document preparation to approvals therefor, characterized by having:

         approval user information management means for managing information on approval users relating to document preparation and approvals;

         approval scenario information management means for managing approval scenario information that stipulates an issuer who proposes a business operation to be approved and prepares and issues a document seeking approval thereof, approvers to approve that document, and an approval order for seeking approval from those approvers, for each document; and

         approval management means for, upon receiving a document issued by an issuer together with information on that issuer, receiving approval scenario information for that received document, from the approval scenario information management means, managing information relating to the issuer for that document, the approvers, the order of approval by the approvers, and the particulars of the approvals made by the approvers, based on that received approval scenario information, as approval status information, and, while so doing, seeking approvals from the approvers according to the approval order managed with that approval status information, and

performing management by entering and updating the information and approval particulars of the approvers making those approvals in the approval status information.

[Claim 3] A recording medium on which is recorded an electronic approval processing program for managing approvals for a business operation to be approved, sequentially from document preparation to approvals therefor, characterized by:

managing approval stipulation information that stipulates an issuer who proposes a business operation to be approved and prepares and issues a document seeking approval thereof, one or a plurality of approvers to approve that document, and an approval order for seeking approval from such approvers, for each document; and

receiving the document issued by the issuer together with information on that issuer, obtaining approval stipulation information relating to approvers for that received document and an approval order for seeking approvals of those approvers, from the approval stipulation information management means, seeking approvals from the approvers according to the approval order in that approval stipulation information, and managing information on the approvers making those approvals, and the approval particulars thereof.

[Claim 4] A recording medium on which is recorded an electronic approval processing program for managing

approvals for a business operation to be approved, sequentially from document preparation to approvals therefor, characterized by:

managing information on approval users relating to document preparation and approvals, managing approval scenario information that stipulates an issuer who proposes a business operation to be approved and prepares and issues a document seeking approval thereof, approvers to approve that document, and an approval order for seeking approval from those approvers, for each document; and

upon receiving a document issued by an issuer together with information on that issuer, receiving approval scenario information for that received document, from the approval scenario information management means, managing information relating to the issuer for that document, the approvers, the order of approval by the approvers, and the particulars of the approvals made by the approvers, based on that received approval scenario information, as approval status information, and, while so doing, seeking approvals from the approvers according to the approval order managed with that approval status information, and performing management, entering and updating the information and approval particulars of the approvers making those approvals into the approval status information.

[Detailed Description of Invention]

[0001] Technical Field To Which Invention Belongs:  
The present invention relates to an electronic approval processing apparatus, and recording medium whereon an electronic approval processing program is recorded, for sequentially managing approvals for business operations that should be approved from document preparation therefor.

[0002]

[Prior Art] In business operations that require approval, an issuer who proposes that business operation and prepares and issues a document seeking approval thereof, and an approver who judges the particulars of that business operation and passes approval thereon, conventionally, judges the next approver from the document of the approval document or from the organizational configuration or the like and hand-carries the document [thereto].

[0003]

[Problems Invention Would Resolve] Accordingly, problems arises such as delays in the business operation to be approved, or time being taken in verifying the approval status.

[0004] There are also cases where, when an approver changes due to a personnel transfer or the like, the

approval document is mistakenly passed to the previous approver, giving rise to security problems.

[0005] An object of the present invention, which was devised in view of the foregoing, is to provide an electronic approval processing apparatus and a recording medium whereon an electronic approval processing program is recorded, wherewith various approval processes that differ according to documents can be managed by machine without human intervention, and the approval processing status can be verified instantly.

[0006]

[Means for Resolving Problems] In order to attain the object stated above, the present invention as described in claim 1 is essentially an electronic approval processing apparatus for sequentially managing approvals for a business operation to be approved, from document preparation therefor, having: approval stipulation information management means for managing approval stipulation information that stipulates an issuer who proposes a business operation to be approved and prepares and issues a document seeking approval thereof, one or a plurality of approvers to approve that document, and an approval order for seeking approval from such approvers, for each document; and approval management means for receiving the document issued by the issuer together with information on that issuer,



obtaining approval stipulation information relating to approvers for that received document and an approval order for seeking approvals of those approvers, from the approval stipulation information management means, seeking approvals from the approvers according to the approval order in that approval stipulation information, and managing information on the approvers making those approvals, and the approval particulars thereof.

[0007] In the present invention as described in claim 1, approval stipulation information that stipulates the issuer, approver(s), and approval order is managed for each document. When an issued document is received, approval stipulation information relating to approvers and an approval order for that document is obtained, approvals are sought from the approvers according to that approval order, and approver information and approval particulars are managed. Therefore approvals are made appropriately, according to the approvers and an approval order managed by document, and the approval processing status can be promptly verified.

[0008] The present invention as described in claim 2, moreover, is essentially an electronic approval processing apparatus for sequentially managing approvals for a business operation to be approved, from document preparation therefor, having: approval user information management means for managing information on approval

users relating to document preparation and approvals; approval scenario information management means for managing approval scenario information that stipulates an issuer who proposes a business operation to be approved and prepares and issues a document seeking approval thereof, approvers to approve that document, and an approval order for seeking approval from those approvers, for each document; and approval management means for, upon receiving a document issued by an issuer together with information on that issuer, receiving approval scenario information for that received document, from the approval scenario information management means, managing information relating to the issuer for that document, the approvers, the order of approval by the approvers, and the particulars of the approvals made by the approvers, based on that received approval scenario information, as approval status information, and, while so doing, seeking approvals from the approvers according to the approval order managed with that approval status information, and for managing management, entering and updating the information and approval particulars of the approvers making those approvals into the approval status information.

[0009] In the present invention as described in claim 2, approval scenario information that stipulates the issuer, approvers, and approval order is managed for

each document, and, when an issued document is received, approval scenario information relating to that document is received, and, while managing the issuer for that document, the approvers, the approval order, and the approval particulars, as approval status information, based on that approval scenario information, approvals are sought from the approvers according to the approval order managed with that approval status information, and management is performed, entering and updating information on the approvers making those approvals, together with the approval particulars, in the approval status information. Therefore approvals are made appropriately, according to the approvers and the approval order stipulated for each document, and the approval processing status also can be promptly verified from the approval status information.

[0010] The present invention as described in claim 3, moreover, is a recording medium on which is recorded an electronic approval processing program for sequentially managing approvals for a business operation to be approved, from document preparation therefor, which manages approval stipulation information that stipulates an issuer who proposes a business operation to be approved and prepares and issues a document seeking approval thereof, one or a plurality of approvers to approve that document, and an approval order for seeking

approval from such approvers, for each document, receives the document issued by the issuer together with information on that issuer, obtains approval stipulation information relating to approvers for that received document and an approval order for seeking approvals of those approvers, from the approval stipulation information management means, seeking approvals from the approvers according to the approval order in that approval stipulation information, and manages information on the approvers making those approvals, and the approval particulars thereof.

[0011] In the present invention as described in claim 3, an electronic approval processing program for managing approval stipulation information that stipulates the issuer, approver(s), and an approval order, for each document, that, when an issued document is received, obtains approval stipulation information relating to approvers and an approval order for that document, seeks approvals from the approvers according to that approval order, and manages approver information and approval particulars, is recorded on a recording medium. Therefore, using that recording medium, the ease wherewith [the electronic approval processing program] can be distributed can be enhanced.

[0012] The present invention as described in claim 4, moreover, is a recording medium on which is recorded

an electronic approval processing program for sequentially managing approvals for a business operation to be approved, from document preparation therefor, which manages information on approval users relating to document preparation and approvals, manages approval scenario information that stipulates an issuer who proposes a business operation to be approved and prepares and issues a document seeking approval thereof, approvers to approve that document, and an approval order for seeking approval from those approvers, for each document, and also, upon receiving a document issued by an issuer together with information on that issuer, receives approval scenario information for that received document, from the approval scenario information management means, manages information relating to the issuer for that document, the approvers, the order of approval by the approvers, and the particulars of the approvals made by the approvers, based on that received approval scenario information, as approval status information, and, while so doing, seeks approvals from the approvers according to the approval order managed with that approval status information, and performs management, entering and updating the information and approval particulars of the approvers making those approvals into the approval status information.

[0013] In the present invention as described in claim 4, an electronic approval processing program for managing approval scenario information that stipulates the issuer, approvers, and an approval order, for each document, that, when an issued document is received, receives approval scenario information relating to that document, and, while managing the issuer for that document, the approvers, the approval order, and the approval particulars, as approval status information, based on that approval scenario information, seeks approvals from the approvers according to the approval order managed with that approval status information, and performs management, entering and updating information on the approvers making those approvals, together with the approval particulars, in the approval status information, is recorded on a recording medium. Therefore, using that recording medium, the ease wherewith [the electronic approval processing program] can be distributed can be enhanced.

[0014]

[Embodiments of Invention] Embodiments of the present invention are now described using the figures. Fig. 1 is a block configurational diagram of an electronic approval processing apparatus relating to one embodiment of the present invention. The electronic approval processing apparatus diagrammed in Fig. 1 is

configured by an approval user information management unit 20 for managing the issuer of an approval document and the approver(s) thereof as approval user information by post information comprising company assignment information and company position information, an approval scenario information management unit 30 for managing approval scenario information defining the issuer of a document to be approved, and approvers and approval order therefor, for each form of documents, an approval status information management unit 40 for managing the approval processing status of a document to be approved as approval status information, and an electronic approval processor 10 that, upon receiving a document issued by an issuer, receives approval scenario information for that document from the approval scenario information management unit 30, manages information relating to the issuer of that document, the approvers, the order of approval by the approvers, and the particulars of the approvals, based on that received approval scenario information, as approval status information, storing that information in the approval status information management unit 40, and, while so doing, seeks approvals from the approvers according to the approval order managed with that approval status information, and performs management, entering and updating the information and approval

particulars of the approvers making those approvals into the approval status information.

[0015] In the approval user information managed by the approval user information management unit 20, post information comprising company assignment information and company position information is managed in correspondence with the names of the approval users, as diagrammed in Fig. 2. The example organization diagrammed in Fig. 2 comprises a sales section 1, sales section 2, and accounting department.

[0016] In the approval scenario information managed by the approval scenario information management unit 30, moreover, company position information or post information for the issuers of the documents and for the approvers are arranged as approval information in approval order, in correspondence with document numbers of the documents subject to approval processing, as diagrammed in Fig. 3. In Fig. 3, moreover, employees are listed as issuers for documents of No.1 form, and the approval order therefor is indicated after that, with the first approver being a section chief, the second approver being a section chief in the accounting department, and the third approver being the accounting department manager. For the documents of No.2 form, furthermore, section chiefs are noted as issuers, with the first approver noted as the accounting department manager.



[0017] The approval status information managed by the approval status information management unit 40, furthermore, comprises approval statuses and approval information wherein post information or the names of issuers and approvers for documents to which document numbers have been assigned by the electronic approval processor 10 are arranged in order, as diagrammed in Fig. 4.

[0018] In Fig. 4, a status situation is diagrammed where employee A of sales section 1 has prepared a document of No.1 form, and requested approval from the sales section 1 chief who is the first approver, but that approval is still pending. Also diagrammed is a status situation where employee E of sales section 2 has prepared a document 2 of No.1 form, requested approval from the sales section 2 chief who is the first approver, and received that approval, but the approval of the accounting department manager who is the second approver is still pending. Further diagrammed is a status situation where section chief B of sales section 1 has prepared a document 3 of No.2 form, and requested approval thereof from the accounting department manager who is the first approver, but that approval is pending. [Also] diagrammed is a status situation where section chief F of sales section 2 has prepared a document 4 of No. 2 form, requested approval therefor from the

accounting department manager who is the first approver, that approval has been granted, and [the approval process] is finished.

[0019] Next, the operation of the electronic approval processing apparatus configured as noted in the foregoing is described with reference to the approval processing example diagrammed in Fig. 5. In Fig. 5, when an issuer who is employee A of sales section 1 prepares a document, the document for which approval is requested and the name of the issuer are transmitted to the electronic approval processor 10 (S1 in Fig. 5). In the electronic approval processor 10, first, a unique document number is attached to the approval document transmitted, and set as the document number in the approval status information, the name of the issuer is also set as the issuer in the approval information, and "preparation" is set as the approval status of the issuer (S2 in Fig. 5).

[0020] Next, the approval information on the first approver for the document number of the approval document is obtained from the approval scenario information. When the approval information is company position information, post information belonging to the same company assignment information as the company assignment information on the issuer and having that company position information is retrieved from the approval user information, and that is

set as the first approver in the approver information of the approval status information. When the approval information is post information, moreover, that post information is set as the first approver in the approver information. "Pending" is set as the approval status of the first approver in the approver information.

[0021] This processing is performed in order, for the second approver, the third approver, and all of the approvers registered in the approval information of the approval scenario information, and the approval status information is prepared (S3 and S4 in Fig. 5). When the approval status information is prepared, the electronic approval processor 10 automatically informs the approval user having the post information set in the first approver of the request to approve that approval document (S5 and S6 in Fig. 5).

[0022] When notification of the approval request is made, the approval user verifies the approval document, and transmits "approved" or "disapproved" as the approval processing result to the electronic approval processor 10 (S7 in Fig. 5). When the approval processing result is "approved," the electronic approval processor 10 sets the name of the approval user obtained from the approval user information as the first approver of the applicable document number in the approval status information, and sets "approved" as the approval status (S8 and S9 in Fig.

5), then automatically notifies the approval user having the post information set in the second approver of the approval request for that approval document (S10 and S11 in Fig. 5). This processing is repeated until the third and last approver set in the approver information of the approval status information (S11 in Fig. 5).

[0023] When the third and last approver has transmitted "approved" as the approval processing result to the electronic approval processor 10 (S12 in Fig. 5), in the electronic approval processor 10, the name of the approval user obtained from the approval user information is set as the third approver having the applicable document number in the approval status information, and "approved" is set as the approval status (S13 and S14 in Fig. 5), whereupon the approval user having the post information on the issuer is automatically notified of all approval statuses of the approvers (S15 and S16 in Fig. 5).

[0024] When the approval user of whom approval processing is requested "disapproves," the electronic approval processor 10 sets the name of the approval user obtained from the approval user information as the approver having the applicable document number in the approval status information, sets "disapproved" as the approval status, and automatically notifies the approval user having the post information set as the issuer, of

the approval status as determined thus far (S16 in Fig. 5).

[0025] When one wishes to know the processing status for an approval document, when the document number is transmitted to the electronic approval processor 10, the electronic approval processor 10 will search the approval status information, obtain all approver information and approval statuses for that document number, and immediately send [that information] back to the requestor.

[0026]

[Benefits of Invention] As described in the foregoing, according to the present invention, approval stipulation information that stipulates an issuer, approvers, and an approval order is managed for each document. When an issued document is received, approval stipulation information relating to the approvers and approval order for that document is obtained, approvals are sought from approvers according to that approval order, and approver information and approval particulars are managed, wherefore approvals are made appropriately and quickly according to the approvers and approval order managed by document, and the processing status of an approval can also be verified quickly. Approval processing can also be performed without mistake even

when approvers change due to personnel transfers or the like.

[Brief Description of Drawings]

Fig. 1 is a block configurational diagram of an electronic approval processing apparatus relating to one embodiment of the present invention.

Fig. 2 is a diagram of approval user information used in the electronic approval processing apparatus diagrammed in Fig. 1.

Fig. 3 is a diagram of approval scenario information used in the electronic approval processing apparatus diagrammed in Fig. 1.

Fig. 4 is a diagram of approval status information used in the electronic approval processing apparatus diagrammed in Fig. 1.

Fig. 5 is an explanatory diagram representing approval processing of the electronic approval processing apparatus diagrammed in Fig. 1.

Explanation of Symbols:

- 10    Electronic approval processor
- 20    Approval user information management unit
- 30    Approval scenario information management unit
- 40    Approval status information management unit

FIG. 1:

- 10    ELECTRONIC APPROVAL PROCESSOR

20 APPROVAL USER INFORMATION MANAGEMENT UNIT  
30 APPROVAL SCENARIO INFORMATION MANAGEMENT UNIT  
40 APPROVAL STATUS INFORMATION MANAGEMENT UNIT

FIG. 2:

APPROVAL USER INFORMATION  
POST INFORMATION  
COMPANY ASSIGNMENT INFORMATION  
SALES SECTION 1  
SALES SECTION 1  
ACCOUNTING DEPARTMENT  
ACCOUNTING DEPARTMENT  
SALES SECTION 2  
SALES SECTION 2  
COMPANY POSITION INFORMATION  
EMPLOYEE  
SECTION CHIEF  
SECTION CHIEF  
DEPARTMENT MANAGER  
EMPLOYEE  
SECTION CHIEF  
NAME

FIG. 3:

APPROVAL SCENARIO INFORMATION  
DOCUMENT NUMBER  
DOCUMENT 1  
DOCUMENT 2

APPROVAL INFORMATION

ISSUER

EMPLOYEE

SECTION CHIEF

FIRST APPROVER

SECTION CHIEF

ACCOUNTING DEPARTMENT MANAGER

SECOND APPROVER

SECTION CHIEF IN ACCOUNTING DEPARTMENT

THIRD APPROVER

ACCOUNTING DEPARTMENT MANAGER

FIG. 4:

APPROVAL STATUS INFORMATION

DOCUMENT NUMBER

APPROVAL STATUS

DOCUMENT 1 (FORM 1)

APPROVAL STATUS

DOCUMENT 2 (FORM 1)

APPROVAL STATUS

DOCUMENT 3 (FORM 2)

APPROVAL STATUS

DOCUMENT 4 (FORM 2)

APPROVAL STATUS

ISSUER

PREPARATION (× 4)

FIRST APPROVER



SALES SECTION 1 CHIEF

PENDING

SALES SECTION 2 CHIEF

APPROVED

ACCOUNTING DEPARTMENT MANAGER

PENDING

ACCOUNTING DEPARTMENT MANAGER

APPROVED

SECOND APPROVER

ACCOUNTING DEPARTMENT MANAGER

PENDING

SECTION CHIEF IN ACCOUNTING DEPARTMENT

DISAPPROVED

THIRD APPROVER

ACCOUNTING DEPARTMENT MANAGER

PENDING

ACCOUNTING DEPARTMENT MANAGER

FIG. 5: [portions of this figure were illegible or semi-legible]

APPROVAL SCENARIO INFORMATION

DOCUMENT FORM

DOCUMENT 1

DOCUMENT 2

FIRST APPROVER

SECTION CHIEF

ACCOUNTING DEPARTMENT MANAGER

SECOND APPROVER

SECTION CHIEF IN ACCOUNTING DEPARTMENT

THIRD APPROVER

ACCOUNTING DEPARTMENT MANAGER

APPROVAL USER INFORMATION

POST INFORMATION

COMPANY ASSIGNMENT INFORMATION

SALES SECTION 1

SALES SECTION 1

ACCOUNTING DEPARTMENT

ACCOUNTING DEPARTMENT

COMPANY POSITION INFORMATION

EMPLOYEE

SECTION CHIEF

SECTION CHIEF

DEPARTMENT MANAGER

NAME

APPROVAL STATUS INFORMATION

DOCUMENT NUMBER

DOCUMENT (FORM 1)

APPROVAL STATUS

ISSUER

PREPARATION

FIRST APPROVER

SALES SECTION 1 CHIEF

PENDING

SECOND APPROVER

SECTION CHIEF IN ACCOUNTING DEPARTMENT

PENDING

THIRD APPROVER

ACCOUNTING DEPARTMENT MANAGER

PENDING

APPROVAL STATUS INFORMATION

DOCUMENT NUMBER

DOCUMENT (FORM 1)

APPROVAL STATUS

ISSUER

PREPARATION

FIRST APPROVER

APPROVED

SECOND APPROVER

SECTION CHIEF IN ACCOUNTING DEPARTMENT

PENDING

THIRD APPROVER

ACCOUNTING DEPARTMENT MANAGER

PENDING

APPROVAL STATUS INFORMATION

DOCUMENT NUMBER

DOCUMENT (FORM 1)

APPROVAL STATUS

ISSUER

PREPARATION

FIRST APPROVER

APPROVED

SECOND APPROVER

APPROVED

THIRD APPROVER

APPROVED

10 ELECTRONIC APPROVAL PROCESSOR

S6 NOTIFICATION

S11 NOTIFICATION

USE

ISSUER

SALES SECTION 1 EMPLOYEE: A

FIRST APPROVER

SALES SECTION 1 EMPLOYEE: B

THIRD APPROVER

ACCOUNTING DEPARTMENT MANAGER: D